FREIGHT NEWS

Freight Transportation Profile—Hawaii Freight Analysis Framework

Understanding future freight activity is important for matching infrastructure supply to demand and for assessing potential investment and operational strategies. To help decisionmakers identify areas in need of capacity improvements, the U.S. Department of Transportation developed the Freight Analysis Framework (FAF), a comprehensive national database and analysis tool that examines freight flows for the truck, rail, water, and air modes. FAF also forecasts freight activity in 2010 and 2020 for each of these modes. Information about the methodology used in developing FAF is available on the Office of Freight Management and Operations' website www.ops.fhwa.dot.gov/freight.

The U.S. freight transportation network moves a staggering volume of goods each year. Over 15 billion tons of goods, worth over $9 trillion, were moved in 1998. The movement of bulk goods, such as grains, coal, and ores, still comprises a large share of the tonnage moved on the U.S. freight network. However, lighter and more valuable goods, such as computers and office equipment, now make up an increasing proportion of what is moved. FAF estimates that trucks carried about 71 percent of the total tonnage and 80 percent of the total value of U.S. shipments in 1998. By 2020, the U.S. transportation system is expected to handle about 23 billion tons of cargo valued at nearly $30 trillion.

Hawaii

Table 1 presents information on freight shipments that have either an origin or a destination in Hawaii. As shown in the table, the truck and water modes moved a large percentage of the tonnage and value of shipments. Domestic flows relate to freight traffic moving within and between the islands or to/from other U.S. markets. International shipments reflect traffic moving to and from global markets through Hawaii's maritime ports and airports. The "Other" category represents primarily international shipments of petroleum products. (Pipeline shipments are not estimated in FAF.) Figure 1 shows freight flows on the water mode.

Truck traffic is expected to increase in Hawaii over the next 20 years. Figures 2 and 3 show total truck traffic for 1998 and 2020, with larger truck growth occurring in urbanized areas.

Table 2 shows the top commodities shipped to, from, and within Hawaii by all modes. The top commodities by weight are crude petroleum and natural products and other raw materials. By value, the top commodities are transportation equipment and electrical equipment.

Table 1. Freight Shipments To, From, and Within Hawaii: 1998, 2010, and 2020

HAWAII	Tons (millions)			Value (billions $)		
	1998	2010	2020	1998	2010	2020
State Total	39	55	62	43	94	159
By Mode						
Air	<1	<1	1	26	61	108
Highway	15	20	22	6	11	18
Other[a]	10	14	15	1	2	3
Rail	0	0	0	0	0	0
Water	14	20	24	10	20	31
By Destination/Market						
Domestic	27	38	43	36	79	131
International	12	17	19	7	15	28

Note: Modal numbers may not add to totals due to rounding.

[a] The "Other" category includes international shipments that moved via pipeline or by an unspecified mode.

Figure 1. Freight Flows To and From Hawaii on Water Mode: 1998

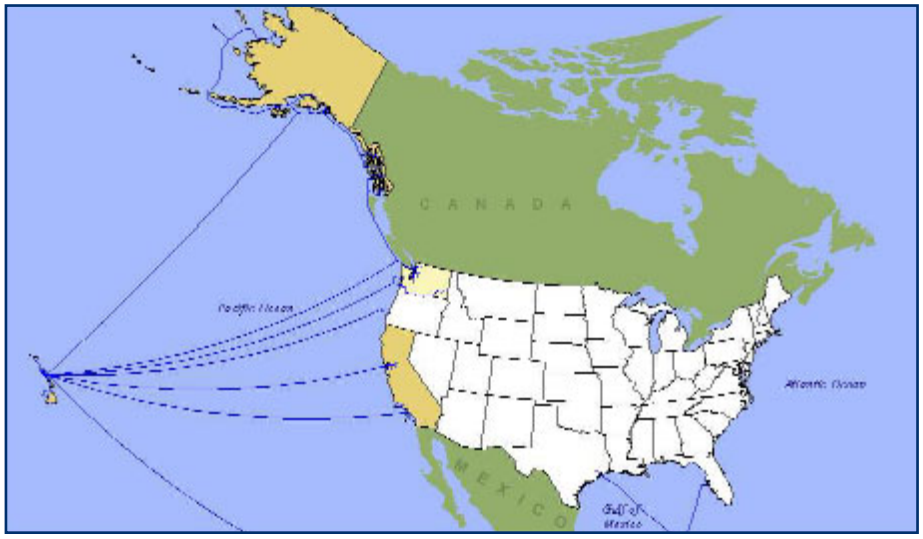

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Figure 2. Estimated Average Annual Daily Truck Traffic: 1998

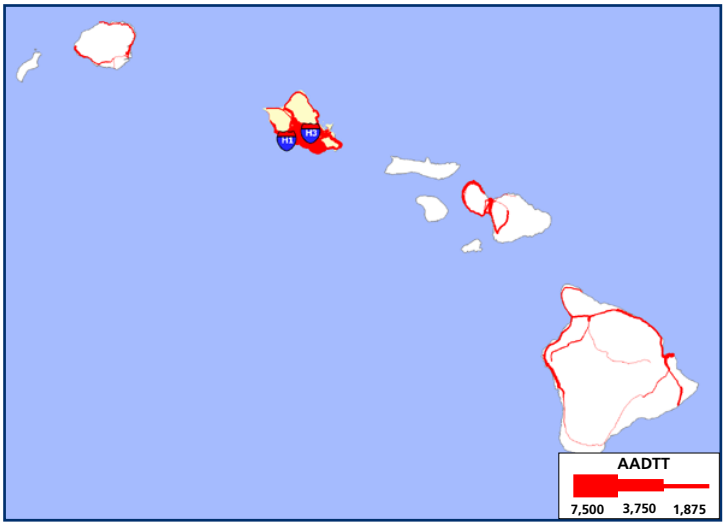

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Figure 3. Estimated Average Annual Daily Truck Traffic: 2020

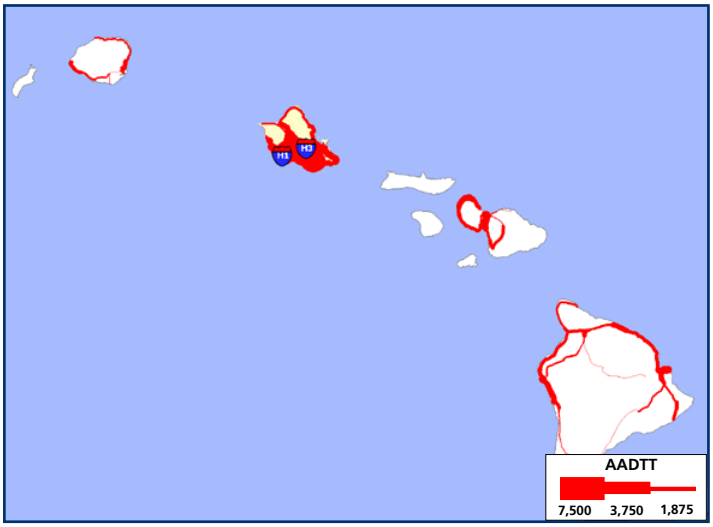

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Table 2. Top Five Commodities Shipped To, From, and Within Hawaii by All Modes: 1998 and 2020

Commodity	Tons (millions)		Commodity	Value (billions $)	
	1998	2020		1998	2020
Crude Petroleum/Natural Gas	12	15	Transportation Equipment	11	21
Nonmetallic Minerals	7	9	Electrical Equipment	7	37
Waste/Scrap Materials	4	9	Machinery	7	39
Petroleum/Coal Products	3	6	Mail/Contract Traffic[a]	5	25
Farm Products	3	3	Crude Petroleum/Natural Gas	1	2

[a] U.S. mail or other small packages.

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A series of FAF products are available on the website noted below. FAF outputs include freight flow maps for states, modes, and gateways; detailed databases on traffic flows and commodity movements; information on the methodologies used to develop FAF; and forecast assumptions.

The U.S. Department of Transportation, Bureau of Transportation Statistics (BTS) is also developing a series of state transportation profiles. For more information and to obtain a copy of the BTS reports, please call 202-366-DATA.

U.S. Department of Transportation

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